

FIG. 1

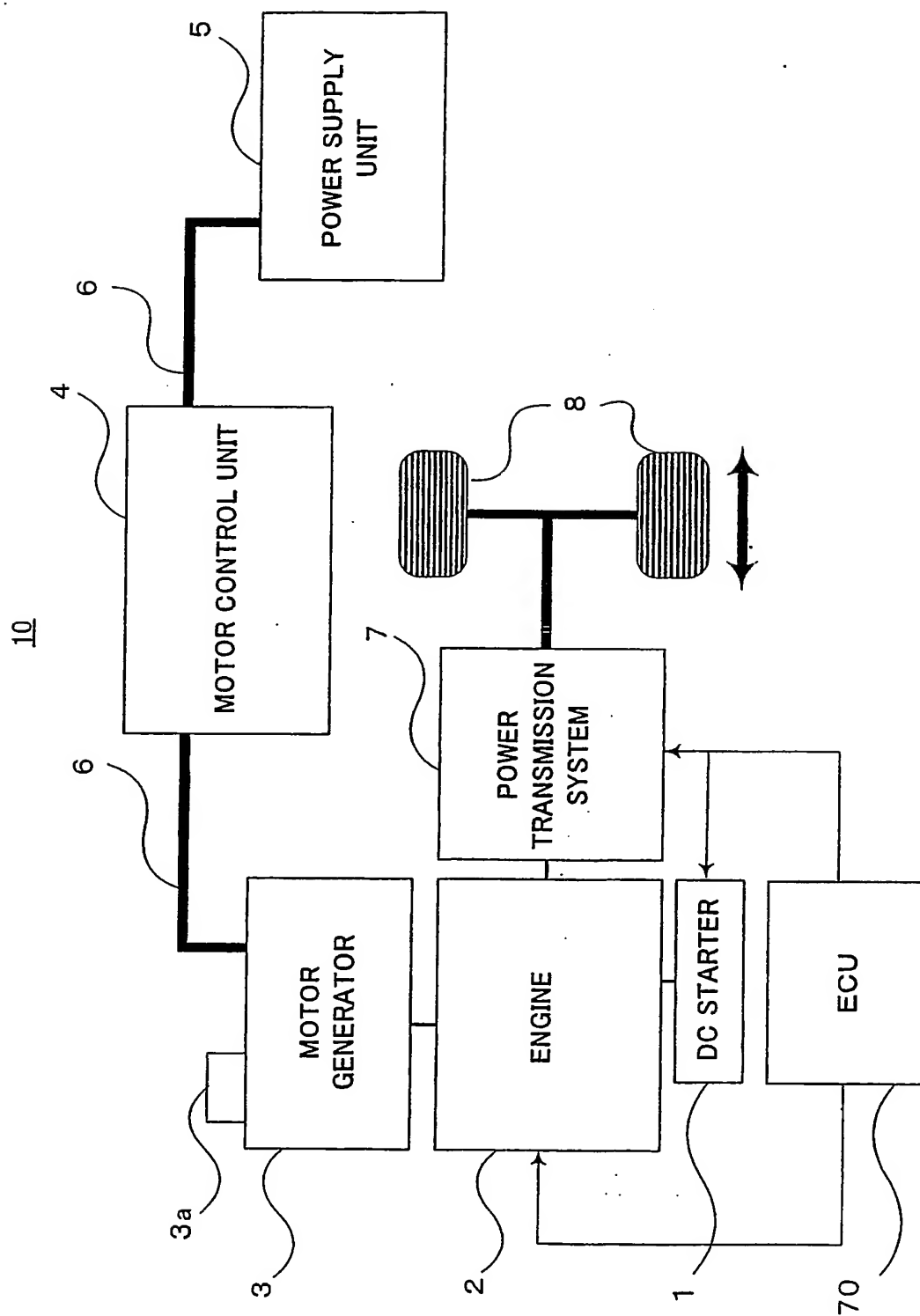


FIG. 2

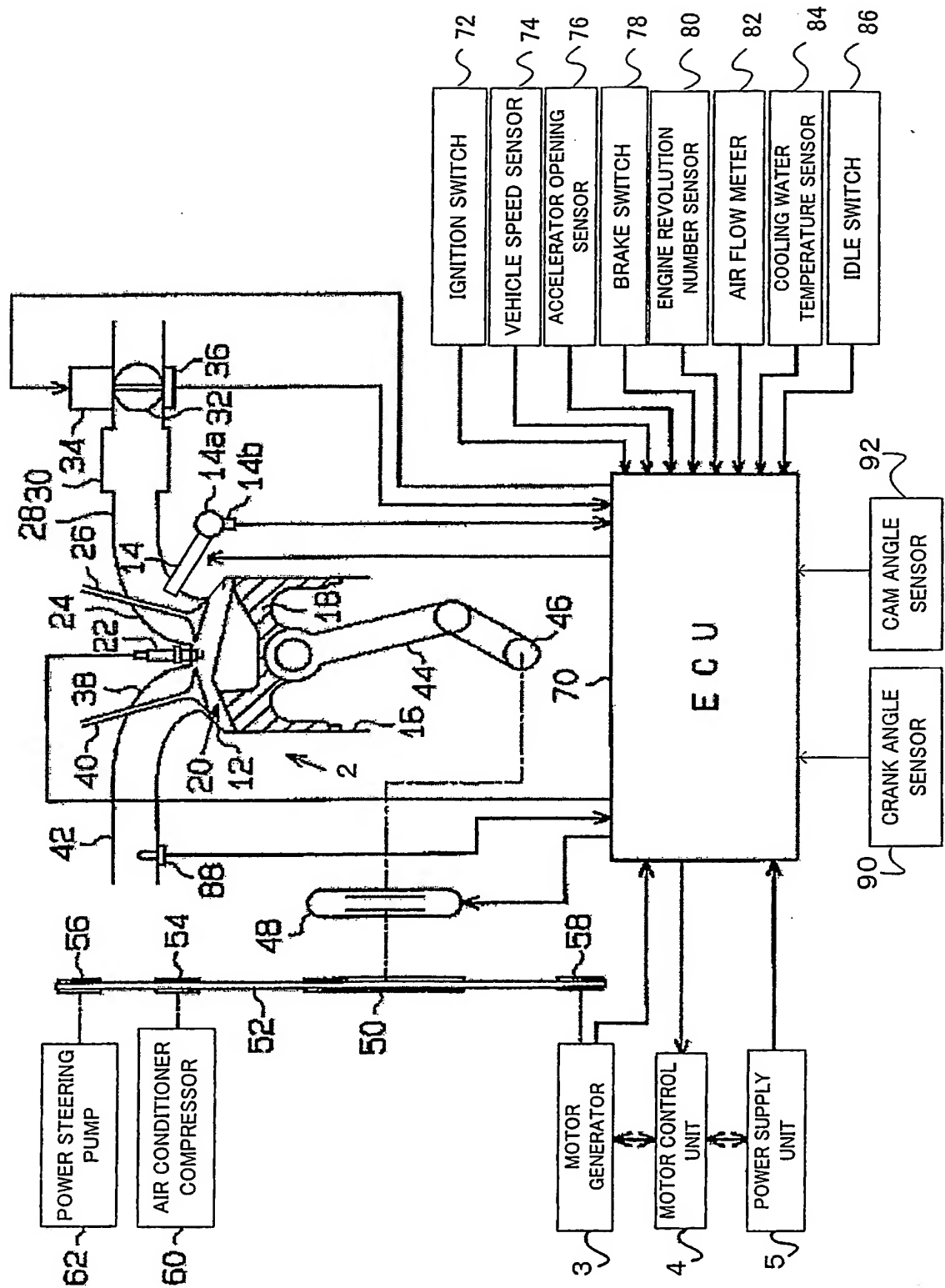
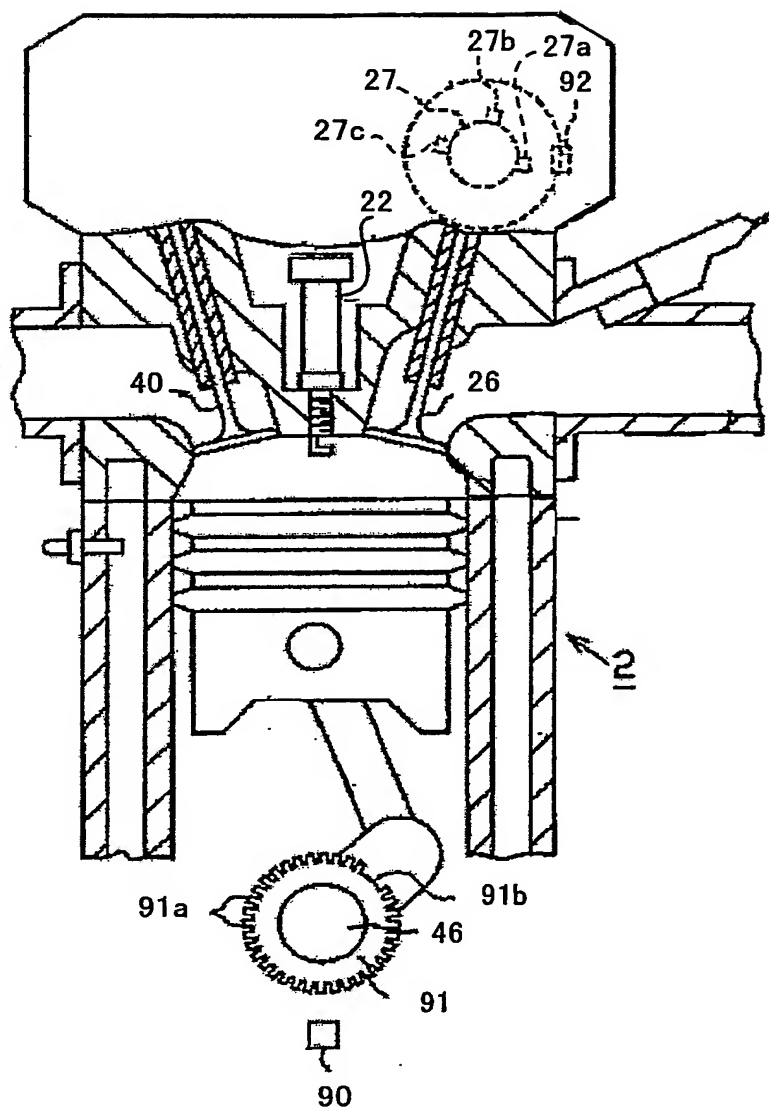


FIG. 3



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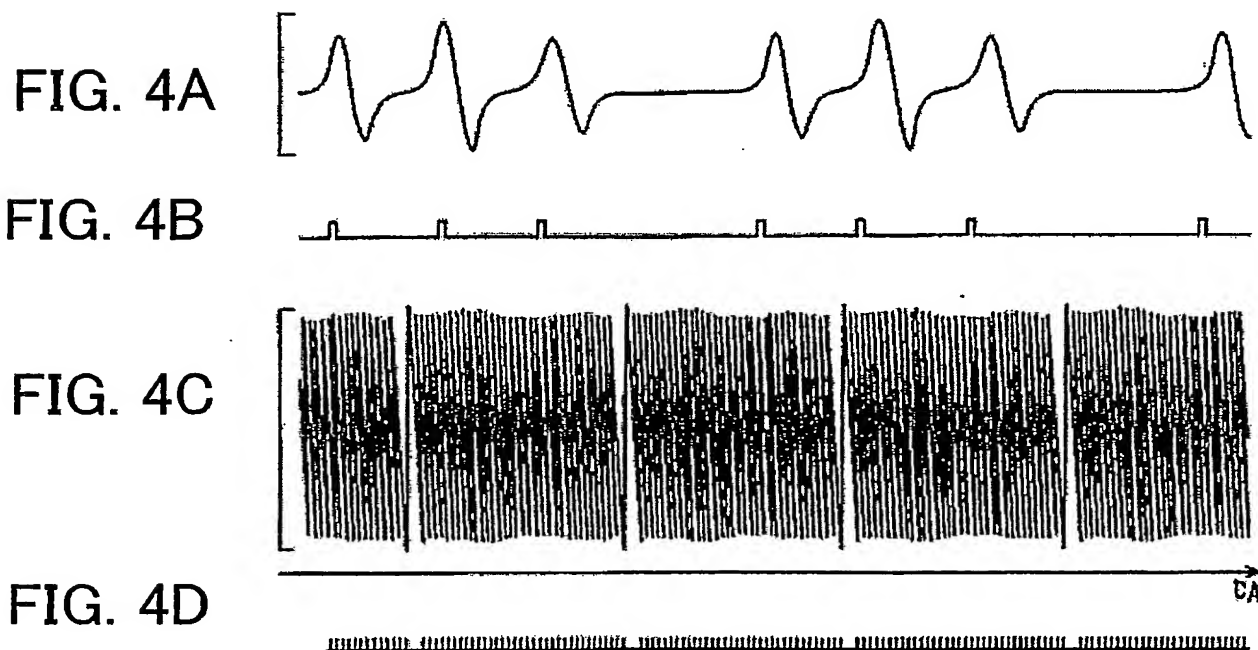


FIG. 5

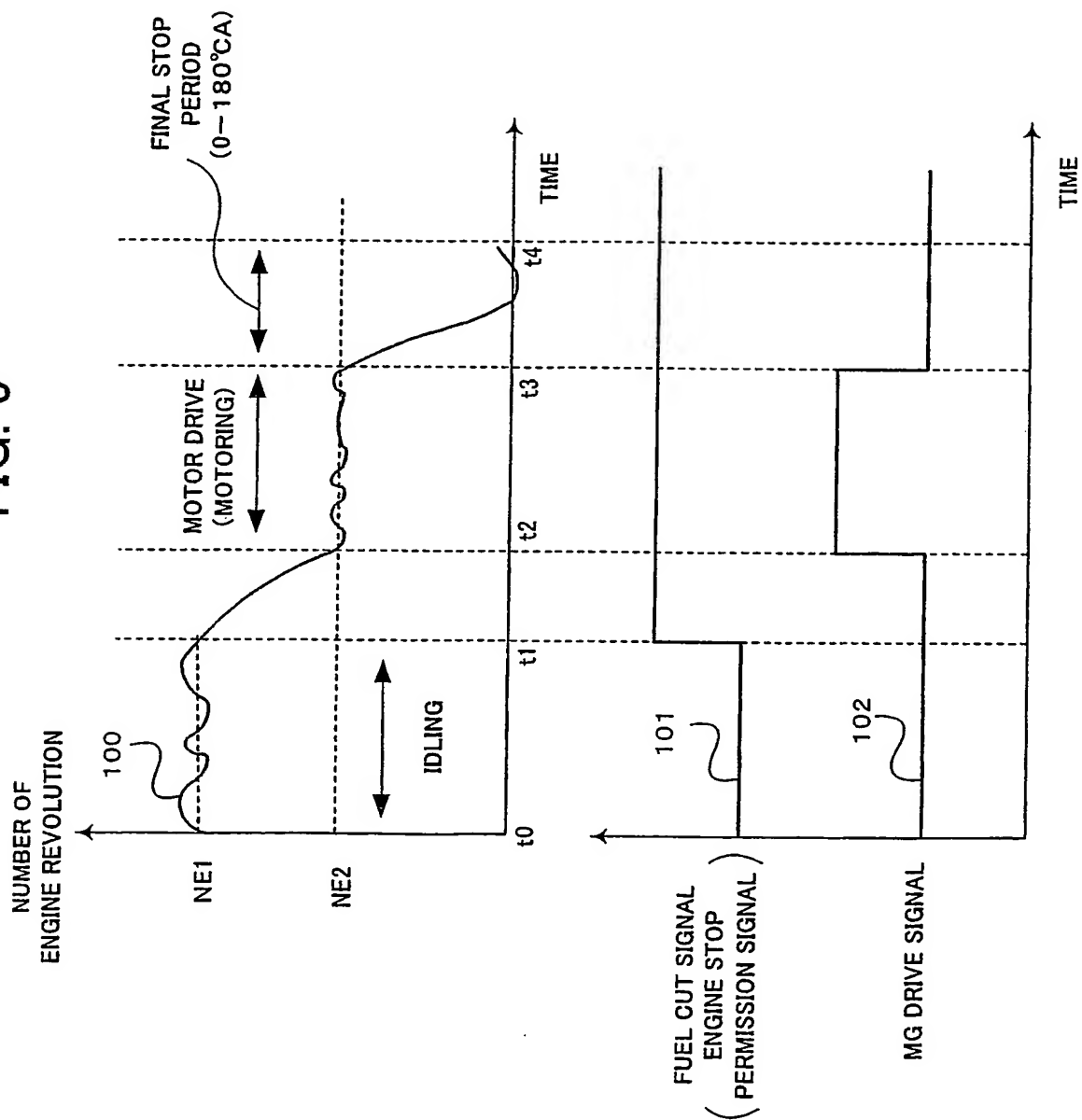


FIG. 6

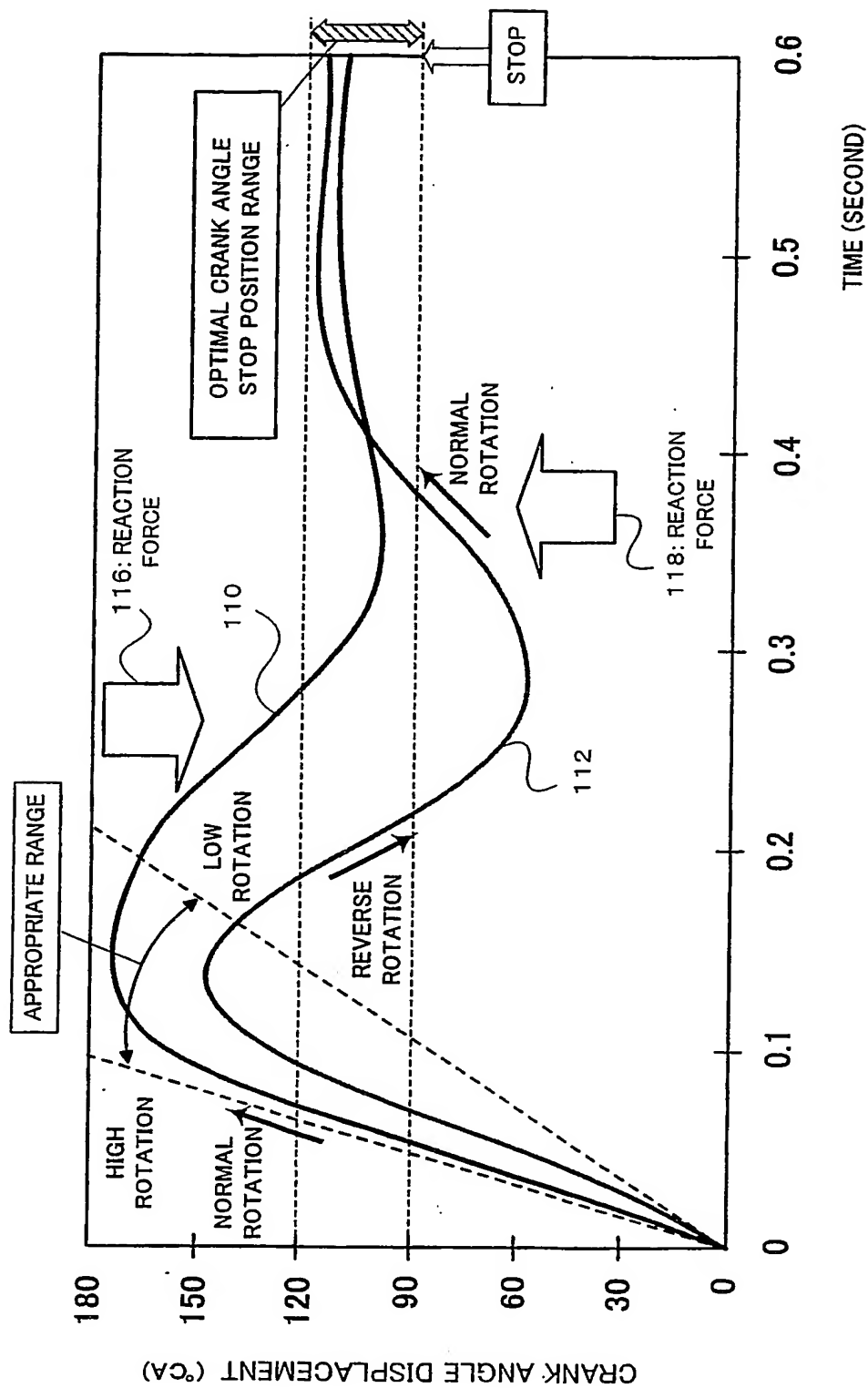


FIG. 7

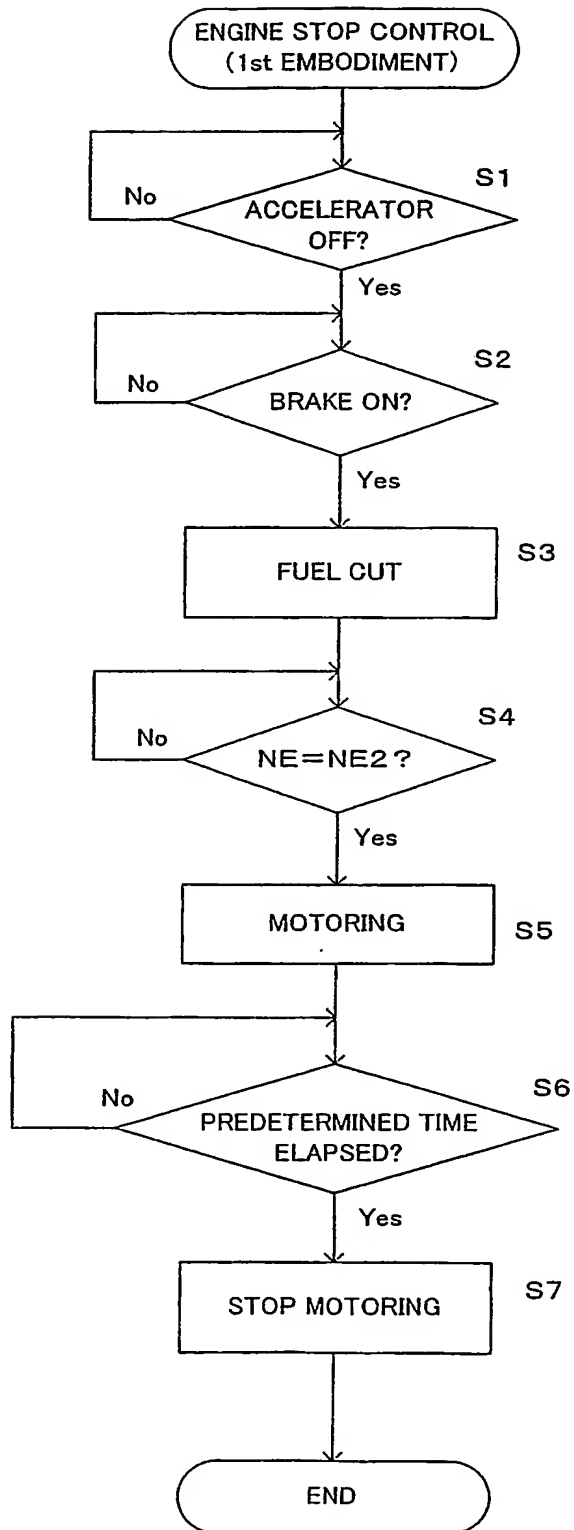


FIG. 8

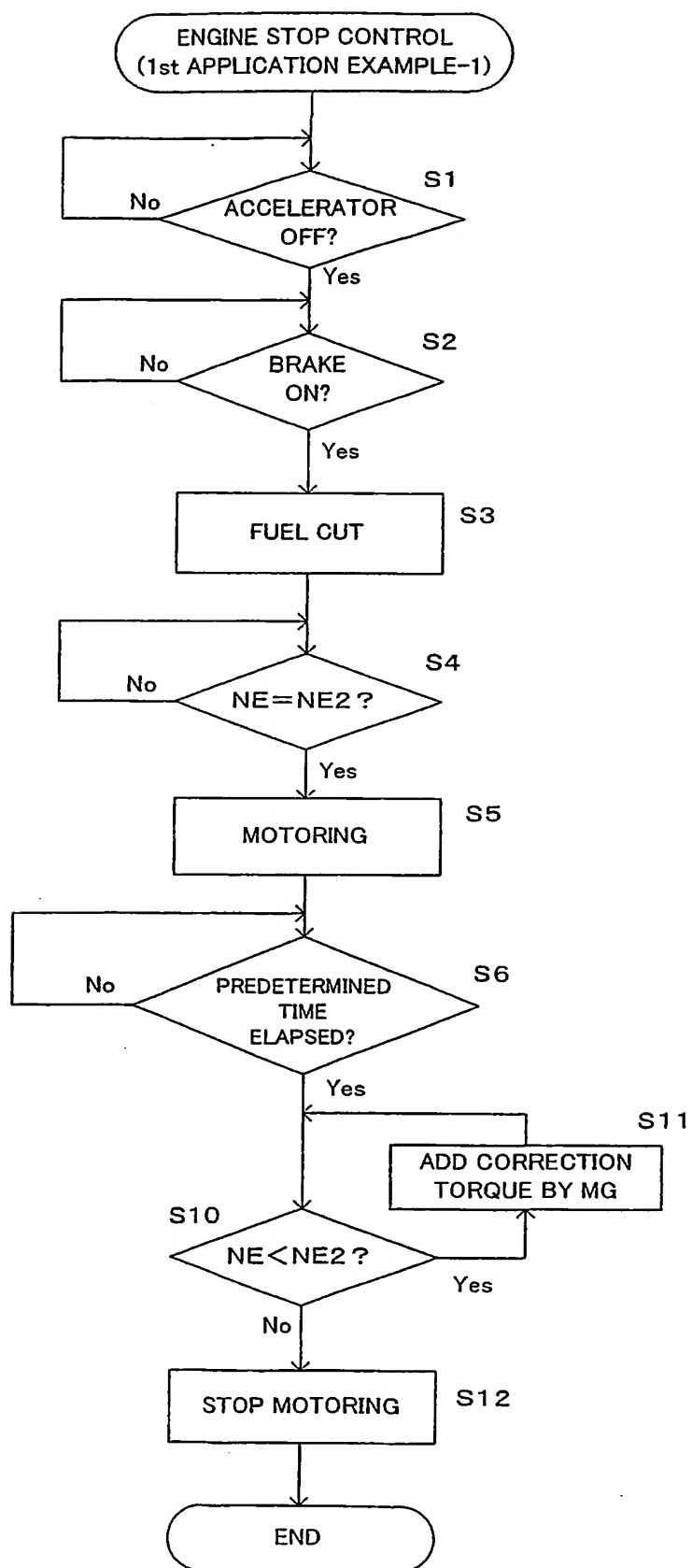


FIG. 9

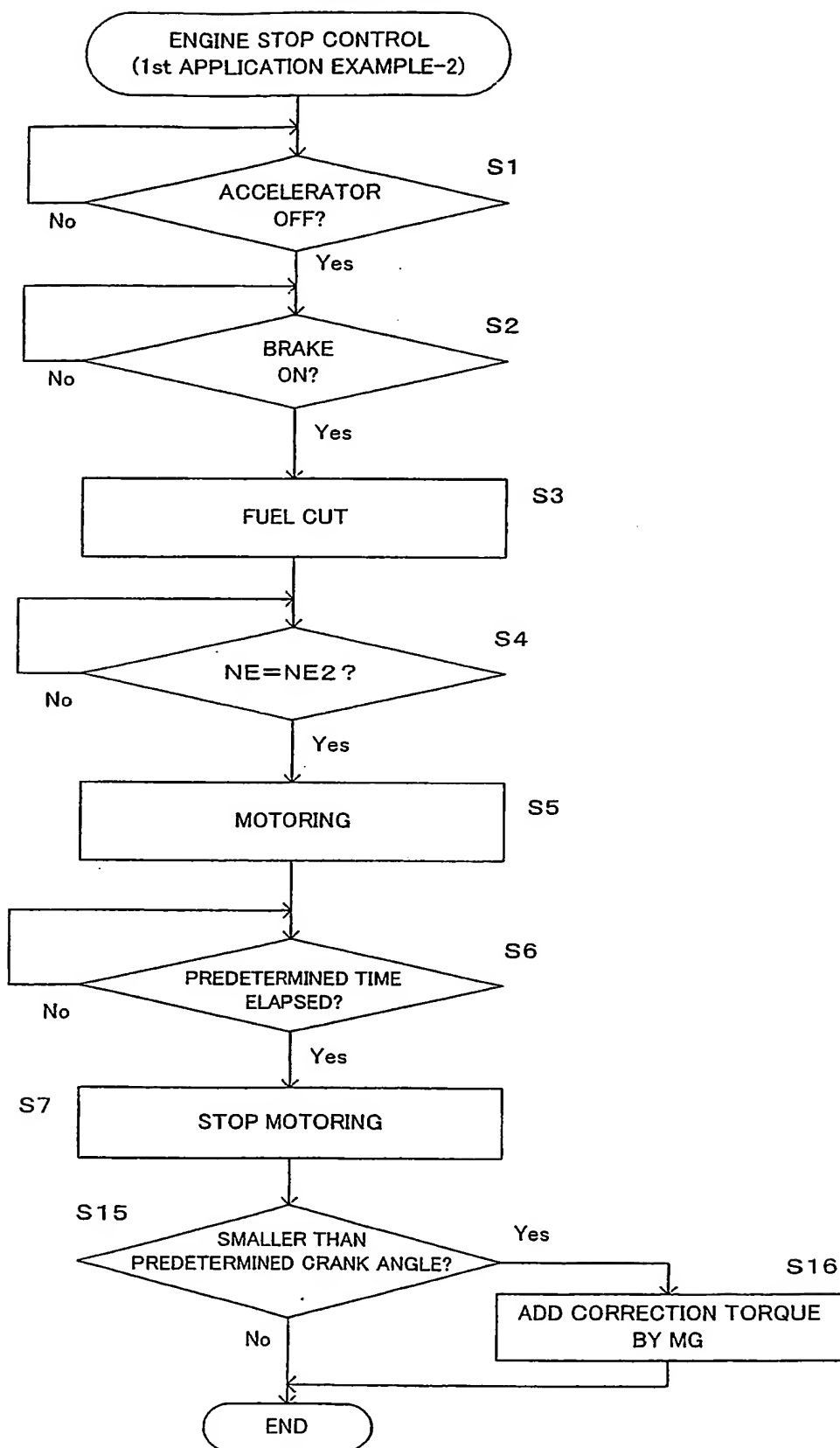


FIG. 10

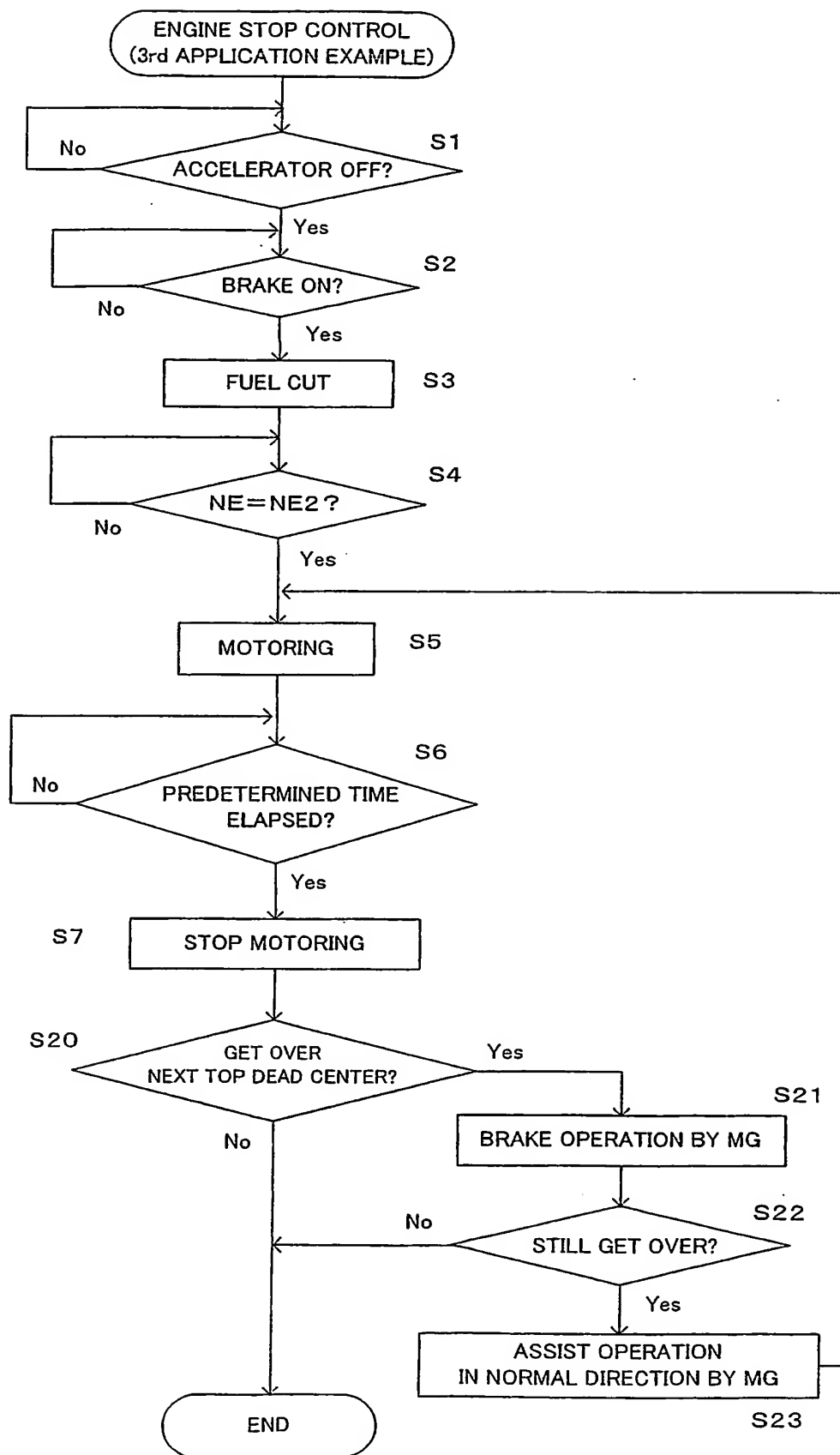


FIG. 11

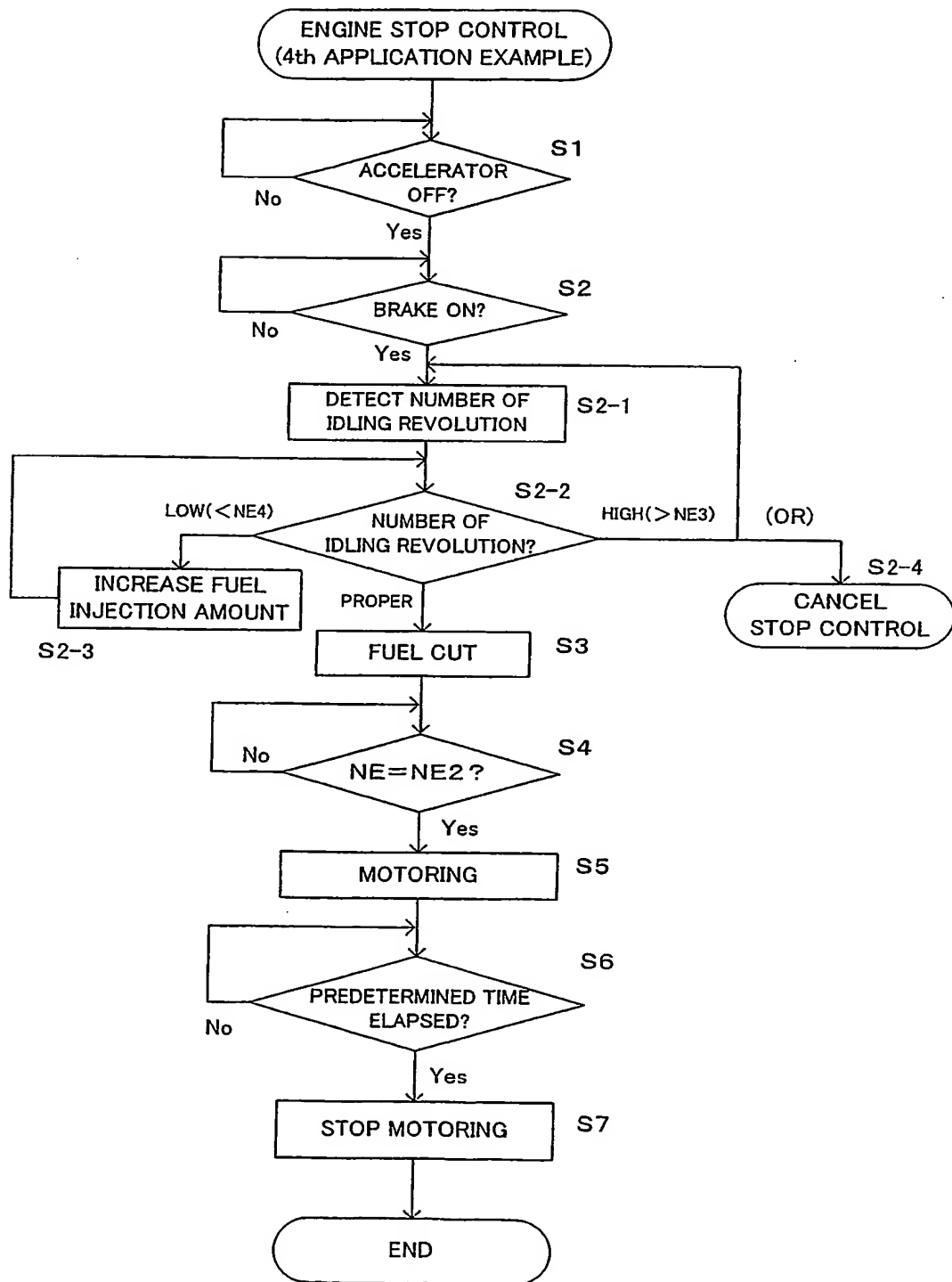


FIG. 12

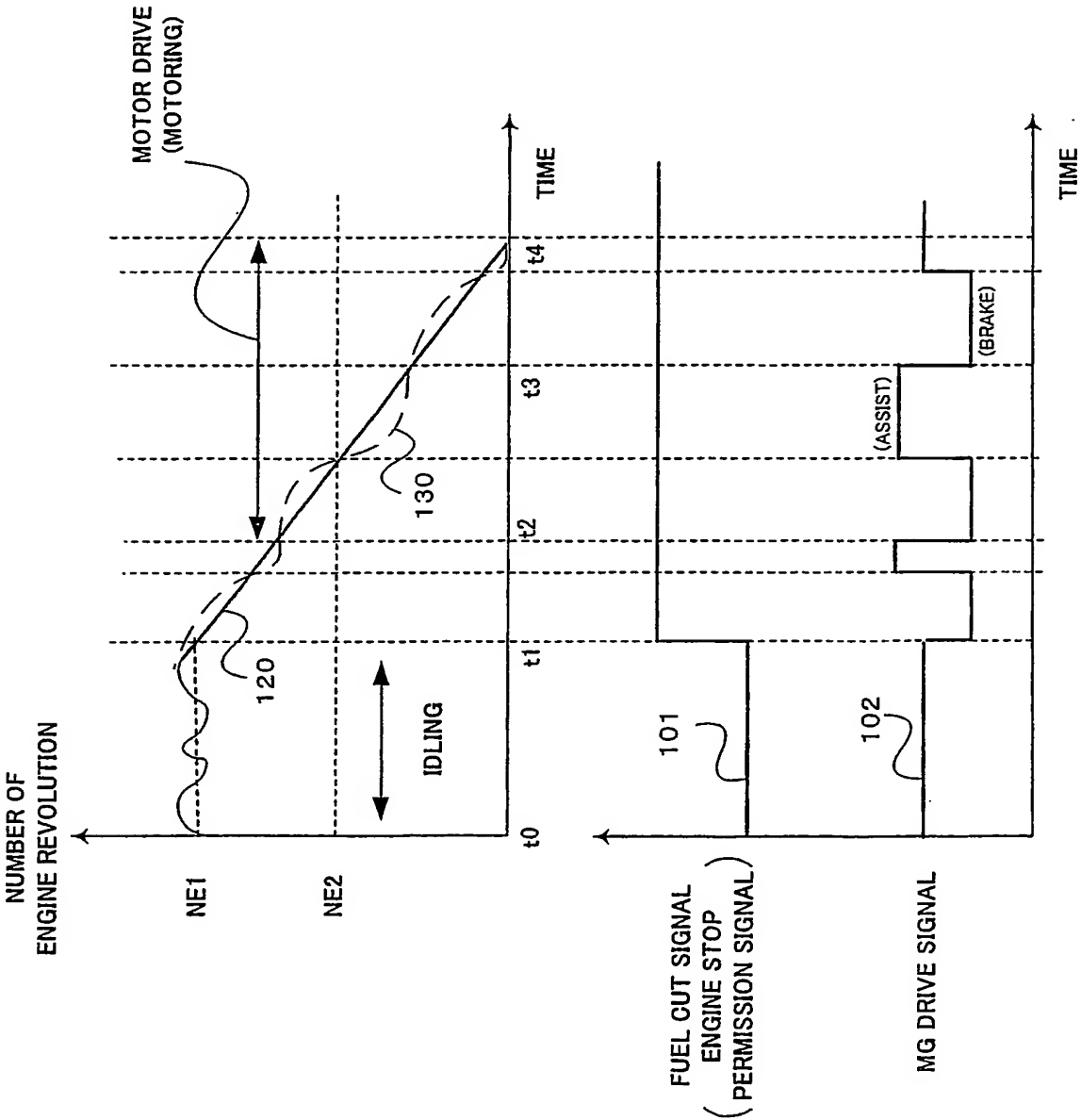


FIG. 13

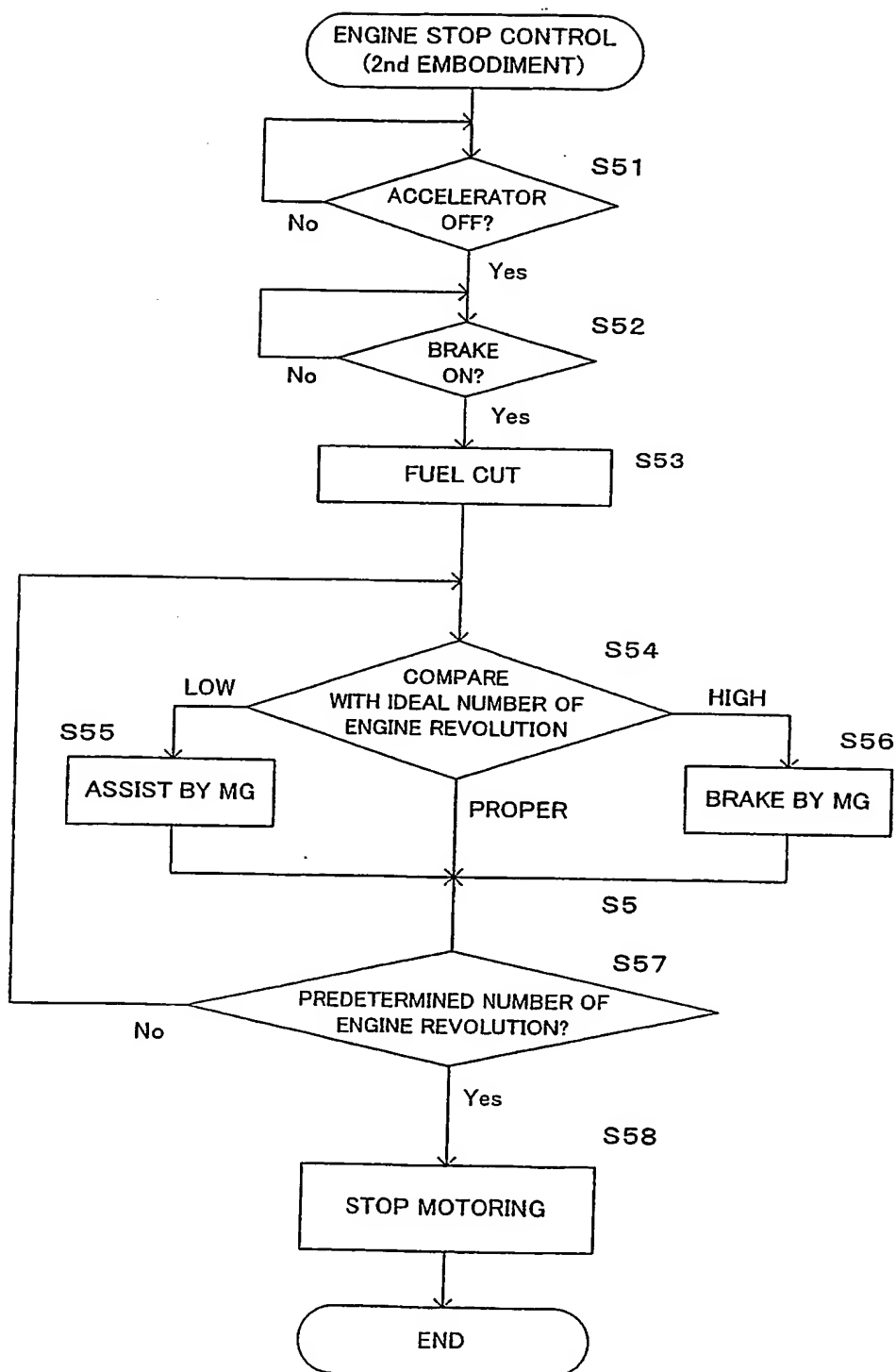
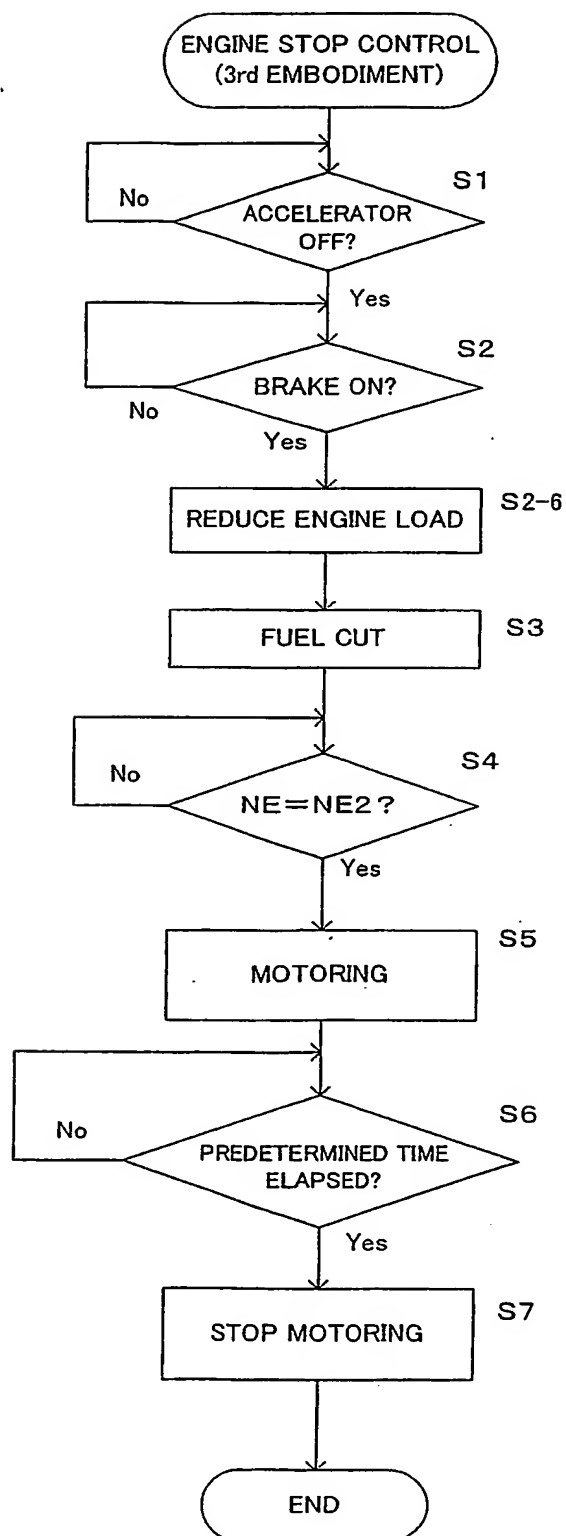


FIG. 14



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FIG. 15

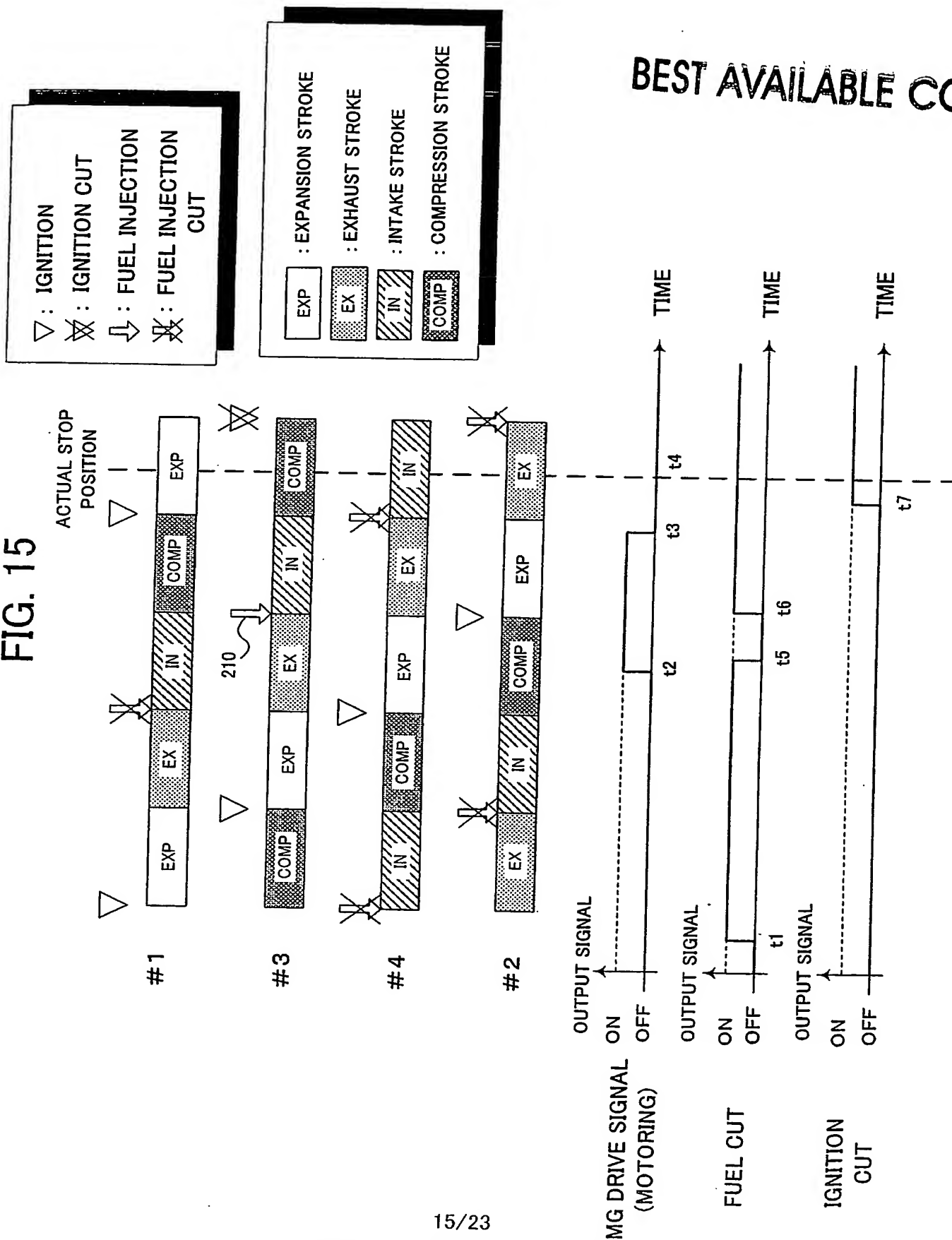


FIG. 16

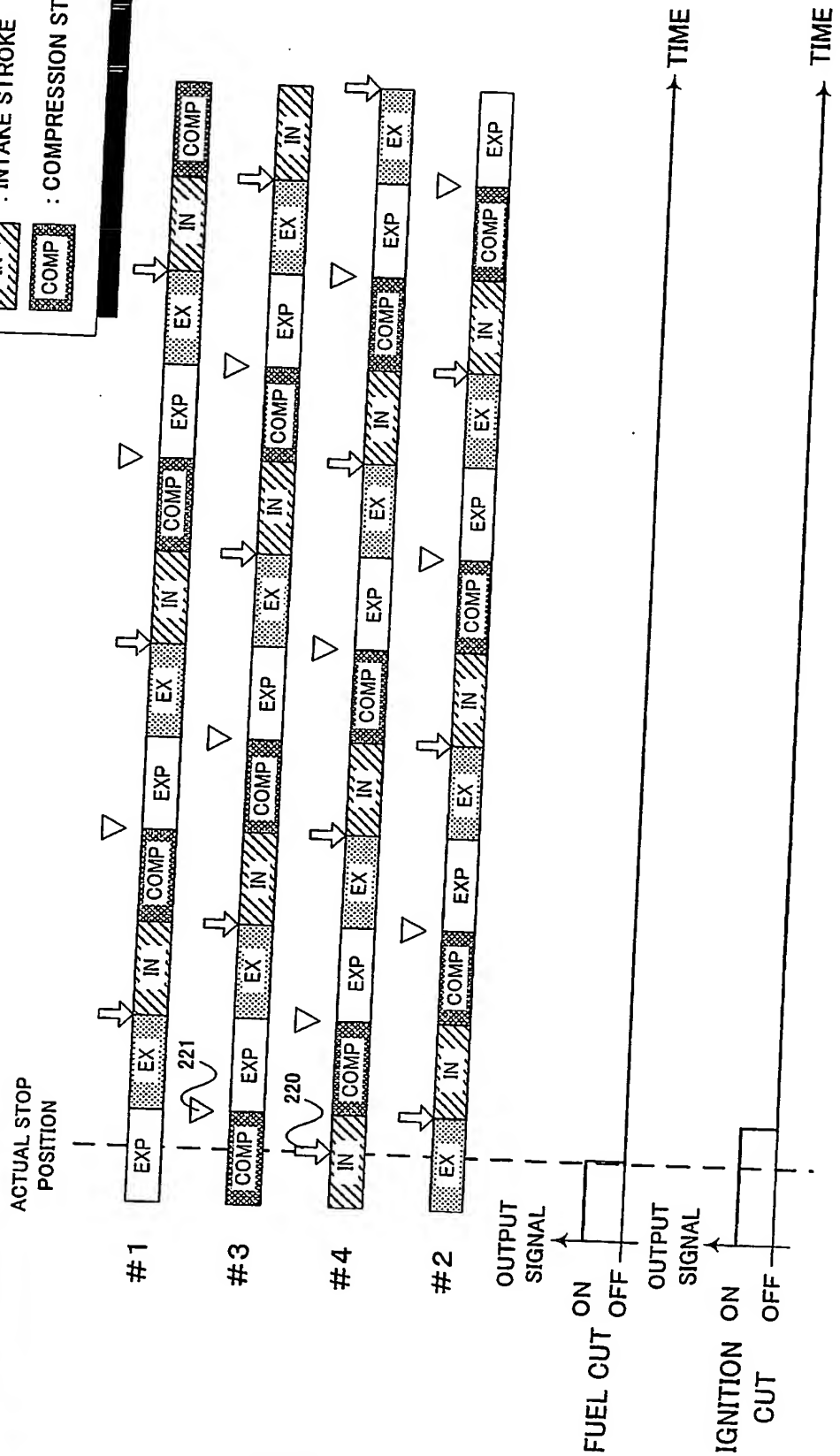
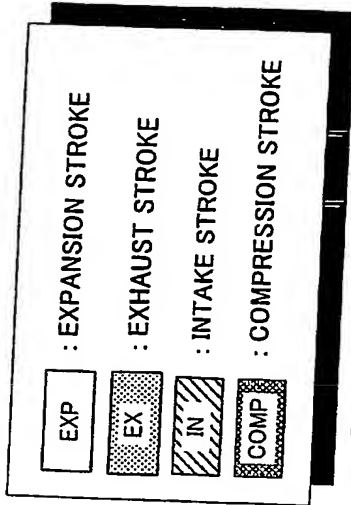
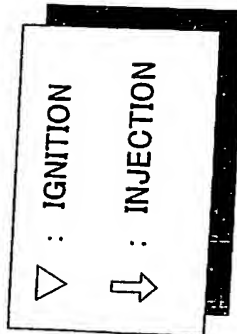


FIG. 17

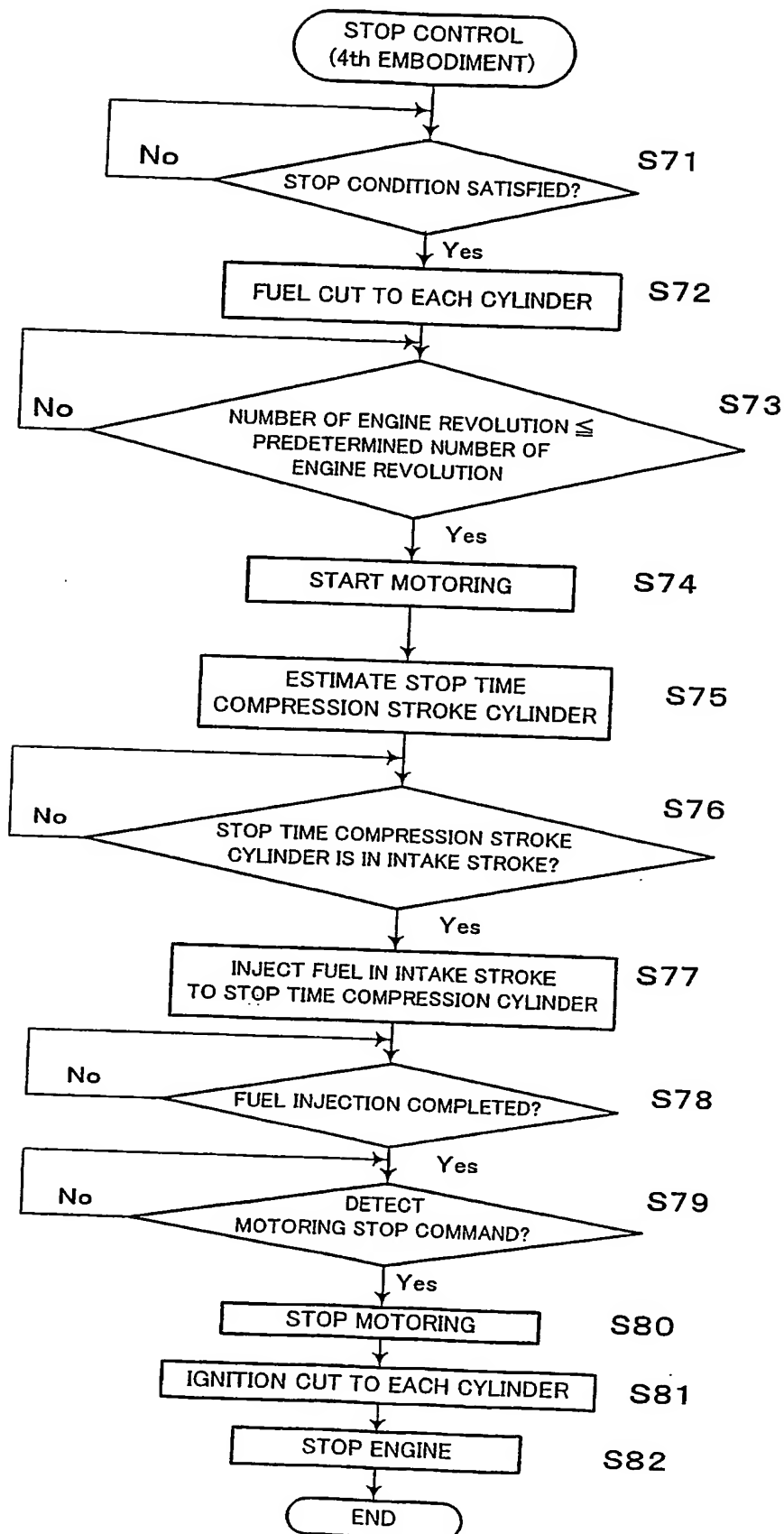
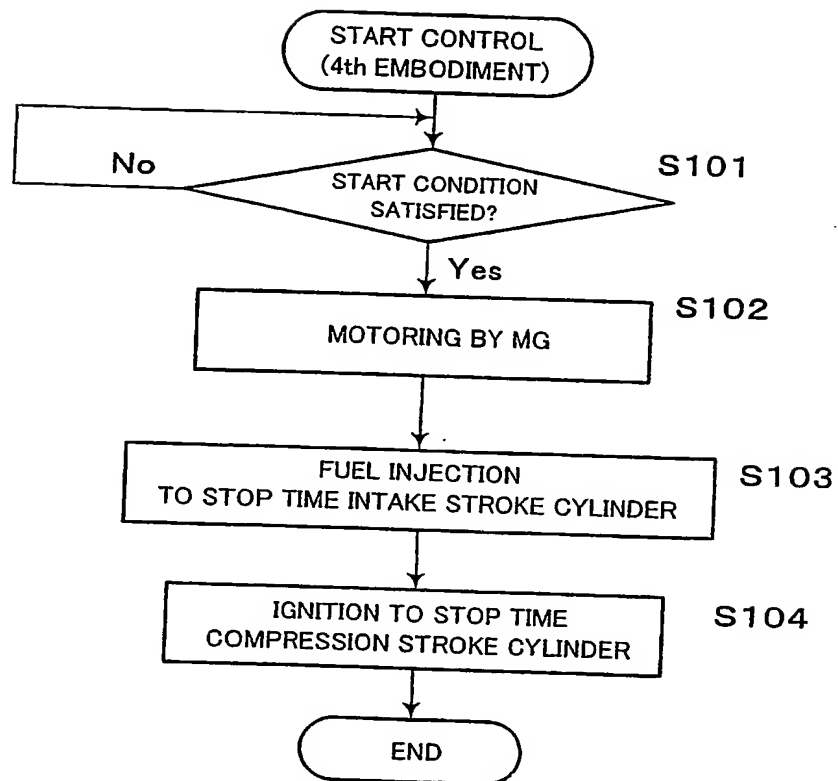
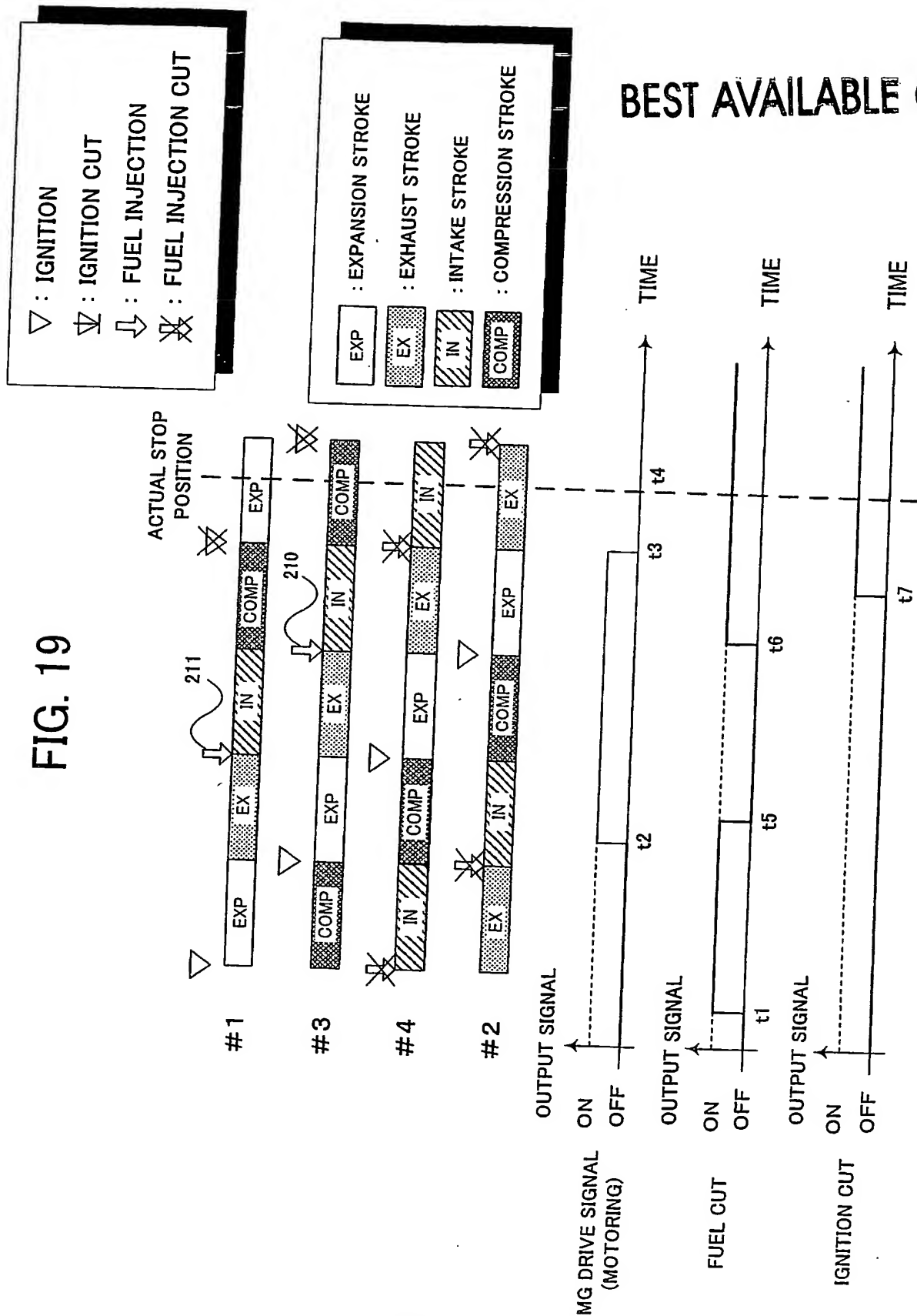


FIG. 18



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FIG. 19



The diagram illustrates the timing sequence for a four-cylinder internal combustion engine. The vertical axis represents the engine cycle, divided into four cylinders: #1, #3, #4, and #2. The horizontal axis represents TIME.

Legend:

- EXP** (white box): EXPANSION STROKE
- EX** (dotted box): EXHAUST STROKE
- IN** (hatched box): INTAKE STROKE
- COMP** (cross-hatched box): COMPRESSION STROKE
- ▽** (inverted triangle): IGNITION
- ↓** (downward arrow): INJECTION

Actual Stop Position: Indicated by a wavy line with a downward arrow pointing to the start of the compression stroke for cylinder #1.

Stroke Sequence for Each Cylinder:

- Cylinder #1:** EXP → EX → IN → COMP → EXP → EX → IN → COMP
- Cylinder #3:** COMP → EXP → EX → IN → COMP → EXP → EX → IN
- Cylinder #4:** IN → COMP → EXP → EX → IN → COMP → EXP → EX
- Cylinder #2:** EX → IN → COMP → EXP → EX → IN → COMP → EXP

Control Signals:

- FUEL CUT:** A pulse signal that is ON during the intake and compression strokes of all cylinders and OFF during the expansion and exhaust strokes.
- IGNITION:** A pulse signal that is ON during the compression stroke of all cylinders and OFF during the expansion and exhaust strokes.

FIG. 21

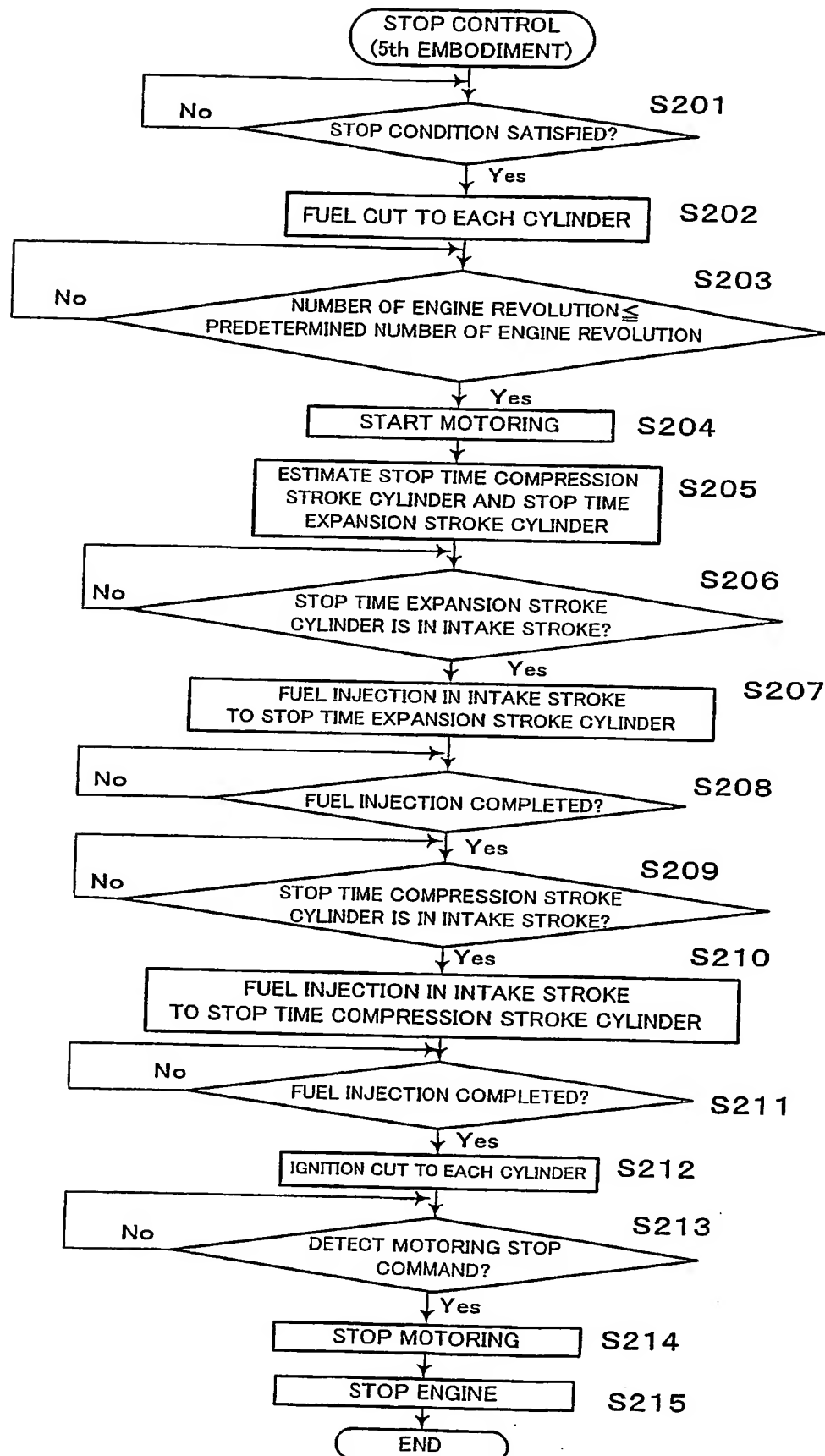


FIG. 22

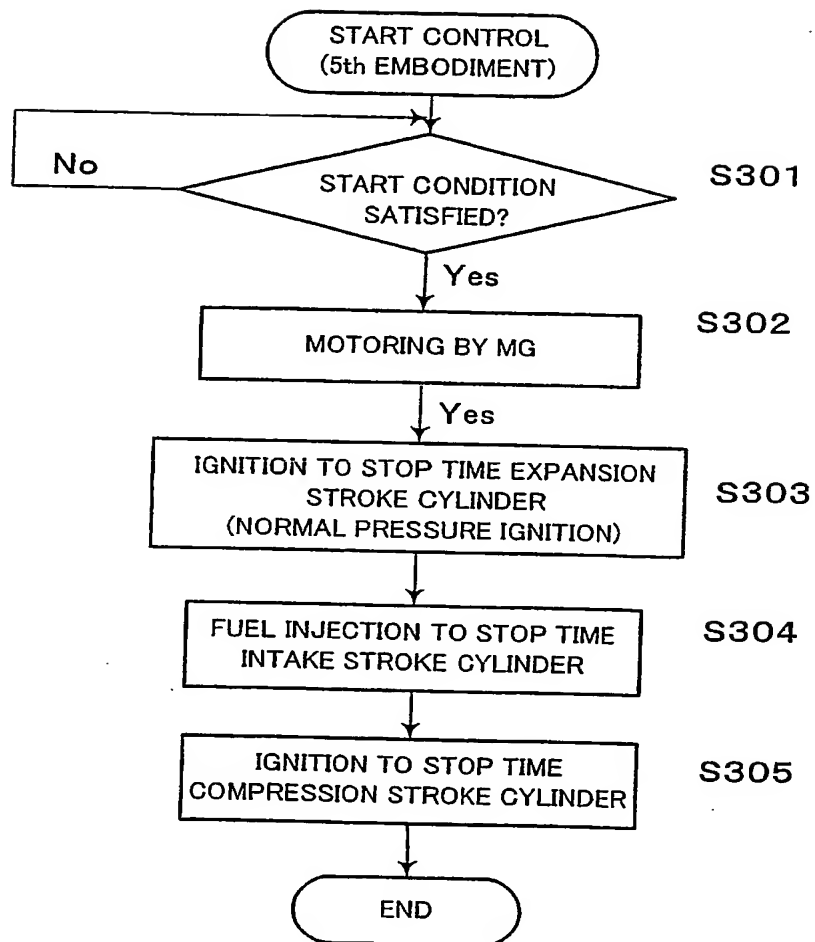


FIG. 23

